

The grit model

In this chapter we would like to introduce the Grit Model. This model identifies the key competences that our students and young researchers need to have in order to face the challenges of today's society.

In our model, social skills, soft skills, ethics, commitment and perseverance play an important role. In this chapter, we will describe the elements of the Grit Model and how the different elements relate to each other (Figure 1).

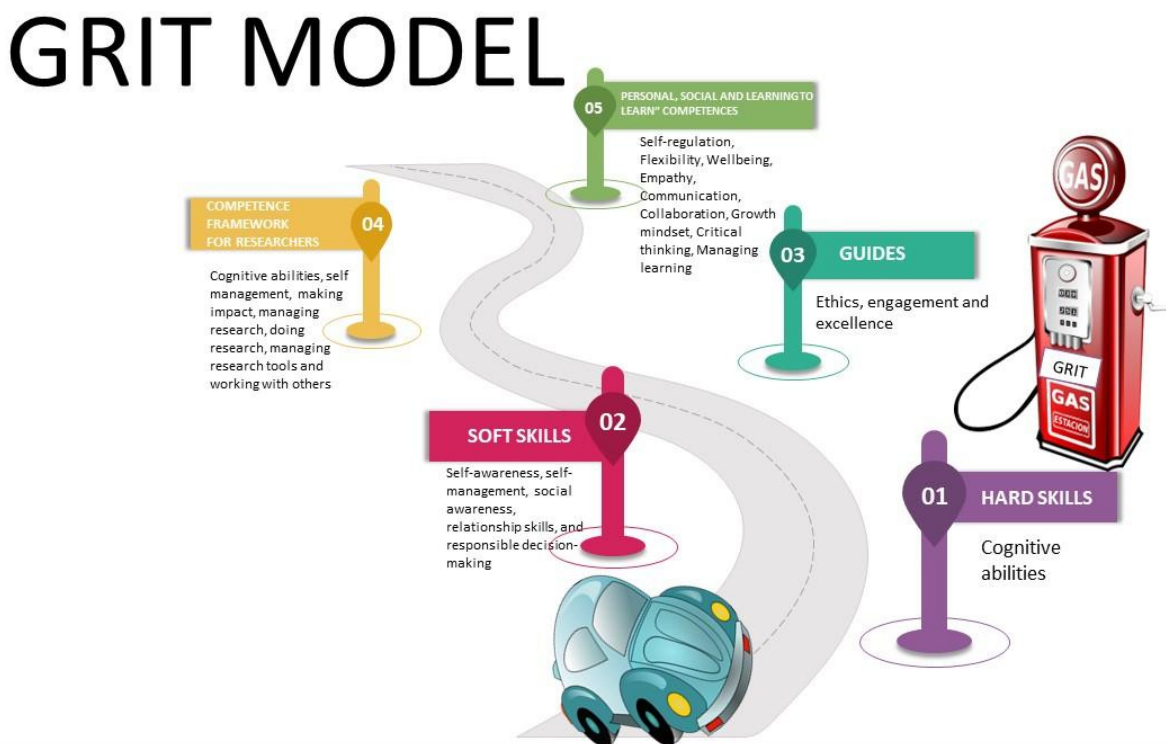


Figure 1. Grit Model

Firstly, we need to make a brief distinction between what are considered hard skills and soft skills, as both concepts are central to our conception of the educational model.

The previous competence of 'learning to learn' has been underpinned by a broader scope that also focuses on personal and social development. Therefore, we will analyse the proposed new competence. We cannot forget the fundamental aspects of the SEL model,

as they will serve as a framework for the development of the competences to be promoted by young researchers.

As we have said in previous chapters, it is commitment, perseverance and passion that will drive and mobilise us on this arduous journey.

Important skills and competences nowadays

Soft skills are those personal attributes and characteristics that enable effective interaction with the environment (Vallejos, 2019). From this perspective, soft skills are a combination of emotional, social, communication and interpersonal skills that allow them to achieve their goals. These soft skills are closely linked to personality and respond to Gardner's (2011) approach to The Theory of Multiple Intelligences, previously mentioned. In contrast, hard skills are competences linked to the technical skills acquired in the performance of certain tasks or functions (De Los Heros, 2017). In order to cope effectively with the demands of our environment, we need to develop both hard skills and soft skills.

Competency-based learning is a pedagogical model in the teaching-learning process that focuses on the competences acquired by the students, on their specific needs and motivations, promoting their autonomy and responsibility, where the students have to go at the same pace in the same subject together with the rest of their class group. This model allows students to recognise their abilities, dispositions, ingenuity or certain aptitudes by going at their own pace. From the European Union's perspective, competency-based learning is essential to meet the challenges of today's society as *"in a rapidly changing and highly interconnected world, each individual will need a wide range of skills and competences and will need to develop them continuously throughout life"*. From this perspective, skills development is key to personal development, employability, social inclusion, civic participation and democracy.

The European Council (2018) defines eight key competences for lifelong learning. These competences are: Literacy, Multilingualism, Mathematical competence and competence in science, technology and engineering, Digital, personal, social and learning to learn citizenship, Entrepreneurship and Cultural awareness and expression. In addition, the old "learning to learn" competence has been reformulated. It is no longer only lifelong learning that is important; personal and social development is also essential. This is why the core competence now focuses on the development of "personal, social and learning to learn". Underlying the reformulation of this competence is a positive attitude towards one's own personal, social and physical well-being. Within this conceptual framework,

collaboration, assertiveness and integrity are crucial aspects. Therefore, the individual must be competent to identify and set his or her own goals, overcome adversity, be motivated, be resilient, seek support when needed, be resilient and confident. All these competences should be developed in the framework of formal and informal education. Social and emotional education proves to be a very useful strategy that will enable us to acquire these competences described above. In addition, social and emotional education will contribute to promoting students' mental health, academic performance and employability over time, increasing pro-social behaviours and reducing disruptive behaviours (Sorrenti et al., 2020; Cefai et al., 2018).

The 2030 Agenda for Sustainable Development, adopted by the UN General Assembly in September 2015, sets out a transformative vision for economic, social and environmental sustainability. The competency approach described above is perfectly aligned with the goals proposed in the 2030 Agenda: *"the knowledge and skills needed to promote sustainable development, including, inter alia, education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and the contribution of culture to sustainable development"* (Calza et al., 2023).

As mentioned above, the core competence is based on three closely related areas: (1) Personal, (2) Social and (3) Learning to learn (Figure 2). Each of these areas is characterised by a series of competences that need to be acquired in order to achieve them. In turn, each of these competences is composed of a set of descriptors that define it (European Commission, 2017; 2018; European Parliament and Council of Europe, 2006).

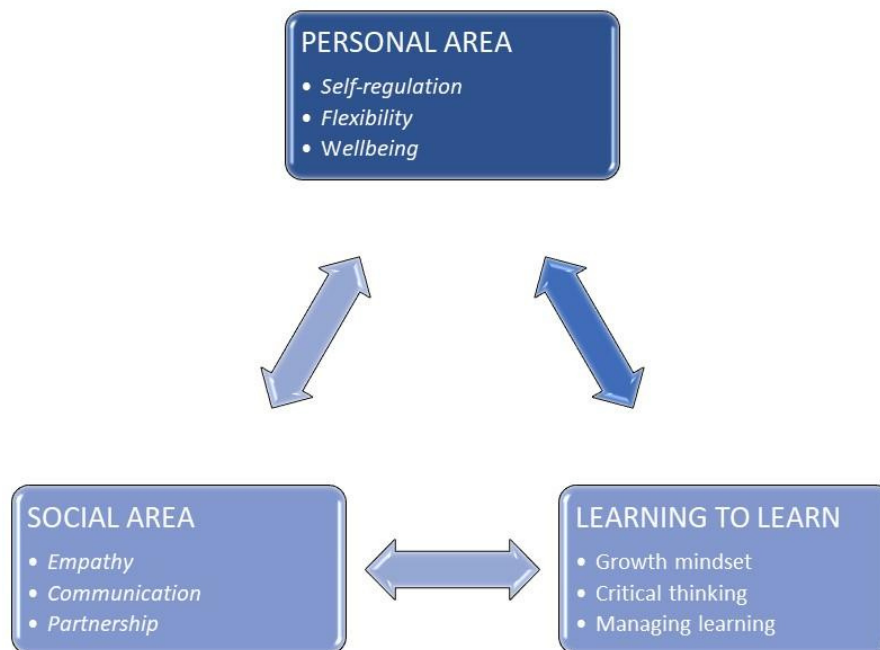


Figure 2. The European Framework for Personal, Social and Learning to Learn Key Competence

Personal area

Within the personal area we must develop the competences of Self-regulation, Flexibility and Well-being.

Self-regulation

From this perspective, Self-regulation is understood as the ability to be aware of our emotions, thoughts and behaviours, in order to be competent to regulate them. For this, it is necessary that the person can:

- Being aware of and able to express personal emotions, thoughts, values and behaviours.
- Understand and regulate personal emotions, thoughts and behaviours, including responses to stress.
- Have optimism, hope, resilience, self-efficacy and a sense of purpose to support learning and action.

Flexibility

In a rapidly changing society, flexibility is a competence that must be acquired in a substantial way. This flexibility will enable us to develop optimism, hope, resilience, self-efficacy and a sense of purpose that will result in greater support for learning and action. Being flexible will equip us with the ability to proactively seek out opportunities. But to achieve this goal we must:

- Be positively disposed to review opinions and courses of action in the face of new evidence.
- Understand and adopt new ideas, approaches, tools and actions in response to changing contexts.
- Managing transitions in personal life, social participation, work and learning pathways, while making conscious decisions and setting goals.

Wellbeing

In order to develop our full potential, we must have a wellbeing that acts as a driving force in the search for life satisfaction and the care of our physical, mental and social health, and allows us to adopt a sustainable lifestyle. As mentioned in previous chapters, personal satisfaction, the search for the meaning of our existence and happiness are central aspects that must be properly developed. The concept of well-being should be understood as the dynamic integration of physical, cognitive, emotional, social, existential and environmental aspects. To optimise our well-being, we must:

- Be aware that individual behaviour, personal characteristics and social and environmental factors influence our health and well-being.
- Understand potential risks to well-being and use reliable information and services for health and social protection.
- Adopting a sustainable lifestyle that respects the environment and the physical and mental well-being of ourselves and others, while seeking and offering social support.

Social area

In order to be socially competent, we must develop an attitude of collaboration, respect for human diversity, overcoming prejudices and commitment to participate in society.

From this perspective, it is essential to learn to live together by developing the ability and willingness to interact, communicate and collaborate with others in a constructive way. Within the social area, we must develop the skills of empathy, communication and collaboration.

Empathy

Empathy is fundamental for the acquisition of other social and emotional competences that allow us to establish relationships with others in a positive way. Empathy is the basis for the acquisition of pro-social behaviour. This competence is composed of:

- Awareness of another person's emotions, experiences and values
- An understanding of another person's emotions and experiences, and the ability to proactively adopt their perspective.
- Receptiveness to the emotions and experiences of another person, being aware that belonging to a group influences one's own attitude.

Communication

Use of relevant communication strategies, domain-specific codes and tools, according to context and content. To achieve effective communication, we must:

- Be aware of the need for a variety of communication strategies, linguistic registers and tools adapted to the context and content.
- Understand and manage interactions and conversations in different sociocultural contexts and domain-specific situations.
- Listen to others and participate in conversations with confidence, assertiveness, clarity and reciprocity, both in personal and social contexts.

Partnership

Collaboration can be defined as participating in group activities and teamwork while recognising and respecting others. A collaborative person is characterised by developing the ability to co-participate in collective activities and undertakings, and to encourage others to collaborate, pooling their knowledge, skills and resources, in order to achieve a common goal. To do this we must:

- Intend to contribute to the common good and be aware that others may have different cultural affiliations, backgrounds, beliefs, values, opinions or personal

circumstances.

- Understand the importance of trust, respect for human dignity and equality, conflict resolution and negotiation of disagreements in establishing and maintaining fair and respectful relationships.
- Equitable sharing of tasks, resources and responsibilities within a group, taking into account its specific purpose. The expression of different points of view and the adoption of a systemic approach are characteristic aspects of collaboration.

Learning to learn

Digitalisation is changing the way people live, interact, study and work. The incorporation of digital technologies aims to facilitate and enhance learning. Learning to learn is a competence that can be acquired throughout life. It is an important driver of change in adulthood, fostering employability and competitiveness. The complexity and interconnectedness of the challenges we face and the unpredictability of the opportunities and threats arising from them can be addressed from the perspective of lifelong learning. This capacity to learn to learn has as its ultimate goal to pursue and persist in learning. From this perspective, aspects such as the organisation of one's own learning, effective time and information management and individual and group work become particularly relevant. In the development of the Learning to Learn competence, it is necessary to enhance the potential for change of individuals and communities, contributing to the common good of society and enabling them to flourish. To do this, we need to develop a growth mindset, critical thinking and learning management.

In terms of growth mindset, we must foster a belief in the potential of oneself and others to continuously learn and progress. The development of this competence is possible if we encourage:

- Awareness and confidence in one's own and others' abilities to learn, improve and achieve with hard work and dedication.
- The understanding that learning is a lifelong process that requires openness, curiosity and determination.
- Reflection on feedback from others and on positive and negative experiences to further develop one's own potential.

When we emphasise the need for the development of critical thinking, we refer to the ability we must develop to carry out an evaluation of information and arguments in support of reasoned conclusions and to develop innovative solutions. As prerequisites for achieving this development we must:

- Be aware of and confident in one's own and others' abilities to learn, improve and achieve with hard work and dedication.
- Understand that learning is a lifelong process that requires openness, curiosity and determination.
- Reflect on feedback from others and on positive and negative experiences to further develop one's own potential.

We cannot forget the importance of promoting effective learning management that allows us to plan, organise and monitor our own learning.

Soft skills for students and young researchers

Recent political and social challenges in Europe have drawn much attention to the role education can play in promoting democratic values among the younger generation. Civic and citizenship education have become part of the curricula in an increasing number of countries.

This implies a growing need not only to improve students' cognitive knowledge in the civic and citizenship domain, but also to promote non-cognitive outcomes such as active citizenship, positive attitudes towards democracy and democratic values. This approach has been clearly highlighted in the need for the development of the competence 'Personal, social and learning to learn'.

As we have already pointed out, it is no longer only necessary to develop a series of cognitive skills (attention, memory, problem solving). Now, more than ever, students and young researchers must develop non-cognitive competences (soft skills) that prepare them to face current challenges. Following the SEL model, the main competences to be developed in formal education are: self-awareness, self-management, social awareness, relational skills, and decision-making (Figure 3). These competences were described in chapter 2.



Figure 3. SEL Model

However, young researchers also need to develop a set of competences that will enable them to carry out their work effectively. These competences have been compiled and described extensively in the "Competence Framework for Researchers" (European Union, 2022). The most specific competences to be developed in research are: cognitive abilities, self-management, making impact, managing research, doing research, managing research tools and working with others.

FRAMEWORK FOR RESEARCHERS



Figure 4. Competences Framework for Researchers

But a researcher will not be able to develop these competences if they have not first acquired the hard skills and soft skills described above. As we can deduce from the above, a research career does not only require the acquisition of cognitive skills. Researchers need to acquire other non-cognitive competences to guide their work in order to successfully meet the challenge posed by the demands of today's society. In research work are important ethics, commitment and excellence. These three aspects must accompany the researcher every step of the way. Ethics refers to the fact that the work is done with social responsibility in mind and how the decisions we make affect ourselves and others. Engagement can refer to how committed individuals feel towards their "work, team, and organization." How happy and satisfied someone is at work and in many cases, it has a strong link with a sense of meaning and purpose in work. The commitment a person makes to their work or to their community is intimately related to the ultimate goal of their work, their values and the responsibility they place on what they do. Excellence refers to work that is good and of high quality. These three components of good work are mediated by the values of each of us. Values are ideas or principles that we hold dear. They can guide the choices we make, such as how we spend our time at work and in our personal lives, and are influenced by a variety of factors, such as our families

and communities. Values influence how we react in situations where we don't know what to do.

As we can see, facing the challenges of this society and working as a researcher is not easy and discouragement can often set in. That is why encouraging persistence and passion are fundamental aspects that will give us the energy and motivation we need to continue with this arduous task. From this point of view, the following figure summarises the main aspects needed to better prepare students and researchers to become protagonists of contemporary society.

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